BOOK REVIEW

The naming of Australia's dragonflies, by Ian Endersby and Heinrich Fliedner. 2015. Busybird Publishing, Eltham, Victoria; xiii + 278 pp. ISBN 9781925260625. Print copies available free of charge from Ian Endersby (endersby@mira.net) or from Heinrich Fliedner (h.fliedner@t-online.de) for European and UK residents. The book is also available as a free pdf download (contact Ian Endersby for further details).



Formal zoological nomenclature follows the binomial system of genus and species originally established by the Swedish biologist Carl Linné, or Linnaeus, in his *Systemae Naturae* of 1758. In principle, any animal can be uniquely identified in this way, with the genus invariably being a noun and the species an adjective or another noun which qualifies the genus. The language chosen for this nomenclature was Latin, at that time the universal language of science, understood by all educated people. Equally important was Classical Greek in its Latinised form.

With changing educational practices, knowledge of even basic Latin has become comparatively rare, knowledge of Greek even more so; hence the scientific names of animals and plants learned by modern biology students have become totally divorced from any meaning, especially among native English speakers and speakers of non-European languages. Whereas Linnaeus' contemporaries would have recognised in Linnaean names the gods, demi-gods and heroes of Classical mythology and literature, the modern lepidopterist who cares to read Homer's *The Iliad* or *The Odyssey*, finds a *dramatis personae* consisting entirely of familiar Swallowtail and *Morpho* butterflies.

In recent times there has been a virtual plethora of books attempting to explain the meanings of Latin and Greek-based Latin names. Many, such as *Latin for Bird Lovers* (Lederer and Burr 2014) or *The Naming of the Shrew* (Wright 2014), attempt to entertain as much as to instruct, producing a result which is somewhat frothy and short on detail. Fortunately, odonatologists have been rather better served by scholarly articles explaining the meanings and origins of dragonfly and damselfly scientific names (*e.g.* Fliedner 1997, 2006, Endersby 2012) and now these two authors have joined forces to produce '*The Naming of Australian Dragonflies*'.

This volume, a substantial tome of xiii ± 278 pages in octavo format, gives us the most comprehensive account we might wish for on the origins and meanings of every available species-group or genus-group name for Australia's dragonflies. These include not only the ca 324 accepted species names and 106 genus names, as well as species such as *Rhinocypha tincta* and *Neurobasis australis* which are not reliably recorded from Australia and are retained in faunal lists out of sheer obstinacy, but also all available synonyms and homonyms, of which there are more than a few.

The book begins with a brief account of the history of the naming of the Australian Odonata, a brief introduction to Latin and Greek prefixes and suffixes and the declensions of the latter and a general discussion of where names come from (people, places, appearance; including colour, pattern, size etc.). There is a detailed tabular breakdown by taxon author of eponyms (named after people, real or legendary) and toponyms (named after a place). The most valuable part of this chapter is the grammatical section. With the odd *lapsus* (e.g. the topographic suffix -ensis should be declined: -ensis, -ensis, -ense), this section provides an admirable introduction to the Latin grammar and Greek orthography and the rules for transliteration from Greek to Roman script that is needed to understand how names are formed and modified under gender agreement requirements. I certainly learned a great deal from reading it and while readers unfamiliar with Latin or Greek might find it heavy going, a little effort taken to master these basic rules and to learn the Greek alphabet will be repaid with interest by affording a full understanding of the detailed etymologies which come later.

The next chapter provides engaging and interesting biographies of the 41 individuals who have authored or co-authored an Australian dragonfly genus or species name. These are admirable in their detail and are generally accompanied by a thumbnail black and white portrait, allowing us to put a face to the name, and serve the very useful purpose of demystifying nomenclature. These names were bestowed by flesh and blood human beings who lived on average a respectable 71.5 ± 11 years, not including the six who are still with us. Indeed, even in cases where I have been long acquainted with the individuals concerned I learned several diverting facts. Quite a few of my own cohort can empathise directly with Gunther Theischinger, whose first-class education lead initially to employment on the railways.

The next and largest chapter deals with the individual etymologies of every available species-group or genus-group name ever given to an Australian dragonfly. It is well researched, erudite and complete. Where necessary, extracts from original descriptions in their original language are included (with English translations for non-English texts). For those of us attempting to construct generic names of odonates, this section has much information of relevance far beyond the Australian fauna. It has been a custom among odonatologists to use Greek roots when naming genera and Latin for species-group names. Generally, Latin is fairly accessible using a good

dictionary, but Greek is a completely different proposition. Even with the fattest Lexicon available, a lot of background knowledge is needed to tease out the component roots and it is not difficult to completely misunderstand them. The etymologies in this book do the work for us. Anyone studying dragonfly nomenclature working in any region will find their knowledge vastly expanded and deepened by studying these examples. Of course, as earlier authors rarely explained their sources, there remain unresolved mysteries and educated guesses. Why did Fabricius write Aeshna, not Aeschna for example? The authors' explanation that this might have come from him adopting an English style of spelling is the most convincing argument I have heard yet, I was particularly taken by the conjectured meaning for Aethriamanta – loving the bright sky. I disagree that Rhyothemis braganza should be regarded as incertae sedis (see pp 11, 123, 268) but rather agree with Hämäläinen (2015) that is was named after a Brazilian monarch as a result of a comedy of errors. This, however, is the only point of difference I can find in the entire book, Some names simply defy decoding – the meanings of both generic and specific names of the common and widespread *Tholymis tillarga* remain unclear.

The book includes an extensive main bibliography of 274 entries, in addition to subsidiary reference lists totalling about 150 items in earlier sections. It is rounded off by five appendices, the first three giving comprehensive statistics on authorship and details of the categorisation of names. The most valuable are Appendix four, which establishes the gender of all generic names and Appendix five, which gives the rules for transliteration from Greek to the Roman alphabet. I thought I knew these rules, but in fact several important gaps in my knowledge were exposed and have now been filled.

In summary, to anyone with a special interest in zoological etymology or anyone actively involved in zoological nomenclature (*i.e.* naming new species), I cannot recommend this book too highly. It is well researched, erudite and thorough, with relevance well beyond Australian shores. Both authors are to be warmly congratulated for having produced such an impressive, informative and useful piece of scholarship.

References

ENDERSBY, I.D., 2012. The naming of Victoria's dragonflies (Insecta: Odonata). *Proceedings of the Royal Society of Victoria* **123**: 155-178.

FLIEDNER, H., 1997. Die Bedeutung der wissenschaftlichen Namen europäischer Libellen. *Libellula*, Supplement 1: 1-111.

FLIEDNER, H., 2006. Die wissenschaftlichen Namen der Libellen in Burmeisters 'Handbuch der Entomologie'. Virgo 9: 5-23.

HÄMÄLÄINEN, M. 2015. Catalogue of individuals commemorated in the scientific names of extant dragonflies, including lists of all available eponymous species-group and genus-group names. *International Dragonfly Fund - Report* 80: 1-168.

LEDERER, R. and BURR, C., 2014. Latin for bird lovers. Timber Press, Portland; 224 pp.

WRIGHT, J. 2014. The naming of the shrew: A curious history of Latin names. Bloomsbury, London; xvi + 303 pp.

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